

REMARKS

I. Introduction

Claims **1-3** and **9-61** are currently pending in the present application. Claims **1, 13, 17, 23, 27-30,** and **54** are independent. All pending claims stand rejected. In particular:

(A) claims **1-3, 9-47,** and **50-61** stand rejected under 35 U.S.C. §103(a) as being allegedly unpatentable over U.S. Patent No. 6,115,649 (hereinafter "Sakata") in view of WO 99/09499 (hereinafter "Smith"), in further view of U.S. Patent No. 5,687,322 (hereinafter "Deaton"), in further view of U.S. Patent No. 5,953,055 (hereinafter "Huang"); and

(B) claims **48-49** stand rejected under 35 U.S.C. §103(a) as being allegedly unpatentable over U.S. Patent No. 6,115,649 (hereinafter "Sakata") in view of WO 99/09499 (hereinafter "Smith"), in further view of U.S. Patent No. 5,687,322 (hereinafter "Deaton"), in further view of U.S. Patent No. 5,953,055 (hereinafter "Huang"), in further view of U.S. Patent Application Publication No. 2002/0133385 (hereinafter "Fox").

This paper is submitted subsequent to a Notice of Appeal mailed on March 15, 2007 as well as an After Final Amendment mailed on May 15, 2007, which was submitted to correct typographical and claim numbering errors to place the application in better form for the Appeal.

Upon entry of this amendment, which is respectfully requested, claims **13-27, 30-35,** and **54-61** will be amended, claims **1-3, 9-12, 28-29,** and **36-50** will be cancelled without prejudice or disclaimer, and new claims **62-67** will be added. No new matter is believed to be introduced by these amendments.

Applicants hereby respectfully request reexamination and reconsideration of the pending claims in light of the amendments and remarks provided herein and in accordance with 37 C.F.R. §1.114.

II. Applicable Law of *Prima Facie* Case and Substantial Evidence

A. *Prima Facie* Burden

The examiner bears the initial burden, on review of the prior art or on any other ground, of presenting a *prima facie* case of unpatentability. If examination at the initial stage does not produce a *prima facie* case of unpatentability, then without more the applicant is entitled to grant of the patent. In re Oetiker, 977 F.2d 1443, 1445, 24 U.S.P.Q.2D 1443, 1444 (Fed. Cir. 1992).

B. Claim Interpretation Must be Consistent with the Specification

During examination, claims are given their broadest reasonable interpretation that those skilled in the art would reach, consistent with the specification. In re Hyatt, 211 F.3d 1367, 1372, 54 U.S.P.Q.2D 1664, 1667 (Fed. Cir. 2000); In re Cortright, 165 F.3d 1353, 1359, 49 U.S.P.Q.2D 1464, 1468 (Fed. Cir. 1999). The “PTO applies to verbiage of the proposed claims the broadest reasonable meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art, taking into account whatever enlightenment by way of definitions or otherwise that may be afforded by the written description contained in applicant’s specification.” In re Morris, 127 F.3d 1048, 1054-55, 44 U.S.P.Q.2D 1023, 1027 (Fed. Cir. 1997).

C. Substantial Evidence is Required of All Factual Findings

The Board is not permitted to accept conclusory, unsupported findings made by the Primary Examiner that are not supported by substantial evidence made of record.

All findings of fact by the U.S. Patent and Trademark Office must be supported by substantial evidence within the record. Brand v. Miller, Slip Op. at 8-9 (Fed. Cir. 2007); In re Gartside, 203 F.3d 1305, 1315, 53 U.S.P.Q.2D 1769, 1775 (Fed. Cir. 2000).

The Supreme Court has described “substantial evidence” in the following manner: substantial evidence is more than a mere scintilla. It means such relevant evidence as a reasonable mind might accept as adequate to support a conclusion. . . . Mere uncorroborated hearsay or rumor does not constitute substantial evidence.

Consolidated Edison Co. v. NLRB, 305 U.S. 197, 229, 83 L. Ed. 126, 59 S. Ct. 206 (1938); see also, Dickinson v. Zurko, 527 U.S. 150, 162, 50 U.S.P.Q.2D 1930, 1935, 144 L. Ed. 2d 143, 119 S. Ct. 1816 (1999) (“Zurko III”). “[R]eview under this standard involves an examination of the record as a whole, taking into consideration evidence that both justifies and detracts from the agency’s decision.” Universal Camera Corp. v. NLRB, 340 U.S. 474, 487-88, 95 L. Ed. 456, 71 S. Ct. 456 (1951); Zurko III, 527 U.S. at 162.

III. The Examiner’s Rejections

A. §103(a) Rejections: Sakata, Smith, Deaton, Huang

Claims **1-3**, **9-47**, and **50-61** stand rejected under 35 U.S.C. §103(a) as being allegedly unpatentable over Sakata, Smith, Deaton, and Huang. Claims **1-3**, **9-12**, **28-29**, **36-47**, and **50** are cancelled herein, rendering this ground for rejection moot with respect to those claims. Of the remaining pending claims that stand rejected under this ground, claims **13**, **17**, **23**, **27**, **30**, and **54** are independent. Appellants traverse this ground for rejection with respect to these remaining independent claims and any claims dependent thereupon.

This ground for rejection is improper at least because the Examiner has not made out a *prima facie* case of obviousness with respect to any pending claim. Further, the references do not render obvious any of the pending claims because the references do not disclose each element of any single claim.

A reading of the rejections reveals that the Examiner has consistently ignored or misinterpreted the limitations of the claims. Several limitations are not disclosed or suggested by any evidence of record. Accordingly, the Examiner has not presented a *prima facie* case of obviousness of any claim.

The Examiner’s Section 103(a) rejections based on the above grounds are argued separately for the following groups of claims:

- Claims **13-16**;
- Claims **17-22**;
- Claims **23-26**;

- Claim 27;
- Claims 30-35 and 51-53; and
- Claims 54-61.

1. The Proper Legal Standard under 35 U.S.C. §103(a)

The examiner bears the initial burden of establishing a *prima facie* case of obviousness based upon the prior art. In re Fritch, 972 F.2d 1260, 1265, 23 U.S.P.Q.2D 1780, 1783 (Fed. Cir. 1992); Oetiker, 977 F.2d at 1445. In the absence of a proper *prima facie* case of obviousness, an applicant who complies with the other statutory requirements is entitled to a patent. Oetiker, 977 F.2d at 1445.

To reject claims in an application under Section 103, an examiner must show an un rebutted *prima facie* case of obviousness. In re Rouffet, 149 F.3d 1350, 1355, 47 U.S.P.Q.2D 1453, 1455 (Fed. Cir. 1998). The *prima facie* case is a procedural tool, and requires that the examiner initially produce evidence sufficient to support a ruling of obviousness; thereafter the burden shifts to the applicant to come forward with evidence or argument in rebuttal. In re Kumar, 418 F.3d 1361, 1366, 76 U.S.P.Q.2D 1048, 1050 (Fed. Cir. 2005). The patent applicant may attack the Examiner's *prima facie* determination as improperly made out, or the applicant may present objective evidence tending to support a conclusion of nonobviousness. Fritch, 972 F.2d at 1265. When rebuttal evidence is provided, the *prima facie* case dissolves, and the decision is made on the entirety of the evidence. Kumar, 418 F.3d at 1366; Oetiker, 977 F.2d at 1445.

2. Substantial evidence is required of all factual findings

In Graham v. John Deere Co., 383 U.S. 1, 148 U.S.P.Q. 459 (1966), the Supreme Court established the test for consideration and determination of obviousness under 35 U.S.C. §103. In Iron Grip Barbell Co. v. USA Sports Inc., the Federal Circuit explained how obviousness must be determined using the four-part Graham test:

we employ the four-part test set forth in Graham v. John Deere Co., 383 U.S. 1 (1966). This test requires us to examine

- (1) the scope and content of the prior art;
- (2) the level of ordinary skill in the art;

(3) the differences between the claimed invention and the prior art;
and

(4) the objective evidence of nonobviousness. Id. at 17-18; see also
35 U.S.C. § 103 (2000).

392 F.3d 1317, 1320, 73 U.S.P.Q.2D (BNA) 1225 (Fed. Cir. 2004); see also,
Rouffet, 149 F.3d at 1355.

U.S. Patent and Trademark Office policy is also to follow Graham. Accordingly, examiners should apply the test for patentability under 35 U.S.C. §103 as set forth in Graham. M.P.E.P. §2141 “35 U.S.C. 103; the Graham Factual Inquiries”, p. 2100-120, 8th ed., Rev. 2 (May 2004). Accordingly, during examination an examiner must conduct the four factual inquiries enunciated in Graham in determining obviousness of any claim.

The underlying factual determinations on which a conclusion of obviousness is allegedly based are reviewed to ascertain whether they are supported by substantial evidence. In re Kumar, 418 F.3d at 1365 (citing Gartside, 203 F.3d at 1316). Unsupported assessments of the prior art are unacceptable for purposes of review. “Rather, the Board must point to some concrete evidence in the record in support of these findings. To hold otherwise would render the process of appellate review for substantial evidence on the record a meaningless exercise.” In re Zurko, 258 F.3d at 1385-86. “[D]eficiencies of the cited references cannot be remedied by the Board’s general conclusions about what is ‘basic knowledge’ or ‘common sense,’” nor may the Board simply reach conclusions based on its own understanding or experience. In re Zurko, 258 F.3d at 1385; Lee, 277 F.3d at 1344. “[T]he Board must not only assure that the requisite findings are made, based on evidence of record, but must also explain the reasoning by which the findings are deemed to support the agency’s conclusion.” Lee, 277 F.3d at 1344.

A determination of the level of ordinary skill in the art is an integral part of the Graham analysis. Ruiz v. A.B. Chance Co., 234 F.3d 654, 666, 57 U.S.P.Q.2D 1161, 1168 (Fed. Cir. 2000) (citing Custom Accessories Inc. v. Jeffrey-Allan Indus., Inc., 807 F.2d 955, 962, 1 U.S.P.Q.2D 1196, 1201 (Fed. Cir. 1986)). Ascertaining a level of ordinary skill in the art is necessary. M.P.E.P. §2141.03.

In making the assessment of differences between the prior art and the claimed subject matter, Section 103 specifically requires consideration of the claimed invention “as a whole.” Princeton Biochemicals, Inc. v. Beckman Coulter, Inc., 411 F.3d 1332,

1337 75, U.S.P.Q.2D 1051, 1054 (Fed. Cir. 2005); Ruiz v. A.B. Chance Co., 357 F.3d 1270, 1275, 69 U.S.P.Q.2D 1686, 1690 (Fed. Cir. 2004). Inventions typically are new combinations of existing principles or features. Envyl. Designs, Ltd. v. Union Oil Co., 713 F.2d 693, 698, 218 U.S.P.Q. 865, 870 (Fed. Cir. 1983) (noting that “virtually all [inventions] are combinations of old elements”). The “as a whole” instruction in Title 35 prevents evaluation of the invention part by part and requires a showing that an artisan of ordinary skill in the art at the time of invention, confronted by the same problems as the inventor and with no knowledge of the claimed invention, would have selected the various elements from the prior art and combined them in the claimed manner. Ruiz, 357 F.3d at 1275.

3. Reason to Combine References Must Include Explicit Analysis
Supported by Substantial Evidence

Whether a rejection is based on a purported combination of relevant teachings of separate references, or on a purported modification of the prior art, an examiner can satisfy the *prima facie* burden only by showing some reason that would lead to the purported combination or modification. KSR v. Teleflex, Slip Op. at 14. Although the KSR decision alters the PTO’s obviousness analysis where a rejection is based on a combination of references, three important requirements remain:

First, the PTO has confirmed that an examiner must identify a reason to combine references, and that analysis must be made explicit. Exhibit A, in a May 3, 2007 Memorandum by Deputy Commissioner for Patent Operations Margaret Focarino (“Focarino Memo”, hereafter); KSR, Slip Op. at 14. Notably, the Focarino Memo stresses that although “[t]he Court rejected a rigid application of the ‘teaching, suggestion, or motivation’ (TSM) test,” Examiners are still required to “identify the reason why a person of ordinary skill in the art would have combined the prior art elements in a manner claimed” in their rejections. The Focarino Memo also confirms that “the analysis supporting a rejection under [Section] 103(a) should be made explicit.”

Second, as noted above, all findings of fact by the U.S. Patent and Trademark Office must be supported by substantial evidence within the record; the factual findings underlying an obviousness analysis are no different. Brand v. Miller, Slip Op. at 8-9 (Fed.

Cir. 2007); In re Gartside, 203 F.3d 1305, 1315, 53 U.S.P.Q.2D 1769, 1775 (Fed. Cir. 2000). The Federal Circuit explicitly held in Brand, a post-KSR decision, that “findings of fact by the Board must in all cases be supported by substantial evidence in the record.” Brand, Slip Op. at 8. The Federal Circuit reiterated that “[t]hat record, when before us, is closed, in that the Board’s decision must be justified within the four corners of that record.” Id. (quoting In re Gartside, 203 F.3d at 1314).

Notably, “agency expertise cannot be substituted for record evidence, because ‘[t]he requirement for administrative decisions based on substantial evidence and reasoned findings – which alone make effective judicial review possible – would become lost in the haze of so-called expertise.’” Id. at 9 (quoting Baltimore & Ohio R.R. Co. v. Aberdeen & Rockfish R.R. Co., 393 U.S. 87, 92 (1968)).

The third requirement relates directly to the problem of “common knowledge” and “common sense” where substantial documentary evidence does not exist in the record. Although MPEP §2144.01 permits consideration of “not only specific teachings of the reference but also the inferences which one skilled in the art would reasonably be expected to draw therefrom,” (quoting In re Preda, 401 F.2d 825, 826, 159 USPQ 342, 344 (CCPA 1968)), Section 2144.03 nevertheless requires that an Examiner only be permitted “to take official notice of facts without supporting documentary evidence or to rely on common knowledge in the art in making a rejection,” in limited circumstances¹. These “circumstances should be rare,” and only when the facts asserted are “capable of instant and unquestionable demonstration as being well-known.” MPEP §2144.03. Indeed, “assertions of technical facts in the areas of esoteric technology or specific knowledge of the prior art must always be supported by citation to some reference work recognized as standard in the pertinent art.” Id. Indeed, MPEP §2144.03 provides a clear roadmap for introducing evidence of common knowledge and common sense into the

¹ MPEP §2144.03 is fully consistent with KSR. The Court in KSR warned only against “[r]igid preventative rules that deny factfinders recourse to common sense,” referring specifically to the Federal Circuit’s requirement that a teaching, suggestion or motivation for combining references be found only in the reference themselves. Slip Op. at 18. While consideration of common knowledge and common sense is desirable in any obviousness rejection, the procedures for taking official notice in the absence of documentary evidence must still be followed. Far from being a “rigid preventative measure,” the procedures outlined in MPEP 2144.03 are no more burdensome than the requirement for factual support in the closed record in any administrative proceeding.

record in a way that satisfies the requirements of the KSR Court, as well as the requirement for substantial evidence in an agency proceeding.

4. Absent substantial evidence, no *prima facie* case exists

The initial burden of presenting a *prima facie* case of obviousness is upon the examiner. In re Oetiker, 24 U.S.P.Q.2D 1443, 977 F.2d 1443, 1445 (Fed. Cir. 1992). If the examiner fails to establish a *prima facie* case, the rejection is improper and will be overturned. In re Rijckaert, 28 U.S.P.Q.2D 1955, 9 F.3d 1531, 1532 (Fed. Cir. 1993); Novamedix Distrib. Ltd. v. Dickinson, 175 F. Supp. 2d 8, 9 (D.D.C. 2001).

If examination at the initial stage does not produce a *prima facie* case of unpatentability, then without more the applicant is entitled to grant of the patent. In re Oetiker, 24 U.S.P.Q.2D 1443, 977 F.2d 1443, 1445 (Fed. Cir. 1992).

5. Claims 13-16

Claims 13-16 stand rejected under Section 103(a) as being unpatentable over Sakata, Smith, Deaton, and Huang. Claim 13 is independent.

The rejections of claims 13-16 are flawed at least because the Examiner has not made a *prima facie* case of obviousness, at least because:

- the references, alone and in combination, fail to teach the claim limitation of *outputting to the customer, in the case that the state of the service queue is determined to indicate fewer than a predefined threshold number of customers waiting in the service queue, a coupon for the item to be redeemed at the retail establishment, wherein the outputting is conducted based on the determination that the item will not be dispensed;*
- despite the clear requirement for an explicit reason to combine references supported by substantial evidence, and despite the unambiguous procedures for taking official notice in the absence of documentary evidence, the Examiner has failed to meet, or even acknowledge these requirements for any of the rejected claims. Relying only on conclusory statements and circular logic to fill in the

gaps, the Examiner's analysis does not meet any of the requirements of a proper obviousness rejection.

Further, at least one of the alleged reasons to combine the references set forth by the Examiner appears to be based on a failed understanding of the pending claims, resulting in an alleged reason to combine appearing to **produce a result opposite to that of the pending claims**; and

- the Examiner has failed to conduct the required *Graham* inquiries necessary to set forth a *prima facie* case for obviousness.

At least for these reasons, the Examiner has failed to establish a *prima facie* case for obviousness, and the Examiner's Section 103(a) rejections of claims **13-16** should therefore be **withdrawn**.

a) No Prima Facie Showing of Obviousness: Claims 13-16

A reading of the rejections of claims **13-16** reveals that the references, either alone or in combination, fail to teach limitations of claims **13-16**.

Further, even if the references taught or suggested every limitation of every claim (which is not the case), the alleged reasons to combine the references provided by the Examiner are not supported by analysis or evidence (much less the requisite substantial evidence on the record) and are not directed to how or why the references would have been combined.

Indeed, the some of the alleged reasons to combine set forth by the Examiner appear to be directed to **a result opposite to that of the pending claims**.

Further, even if the alleged reasons to combine set forth by the Examiner were relevant and properly supported (which they are not), at least because the Examiner has failed to conduct the required *Graham* inquiries, *e.g.*, a determination as to the level of ordinary skill in the art, it is not clear if such alleged reasons to combine would indeed have been within the knowledge of such a person at the time of invention.

Accordingly, the Examiner has failed to establish a *prima facie* case of obviousness of claims **13-16**, and these rejections should therefore be **withdrawn**.

*(1) The References Do Not Disclose All the Limitations of
claims 13-16*

Applicants respectfully submit that claims **13-16** are patentable in light of the evidence cited (Sakata, Smith, Deaton, and Huang), either alone or in combination.

No combination of the subject matter described in Sakata, Smith, Deaton, and/or Huang teaches or suggests all of the features of claims **13-16**. The Examiner has failed to properly support, with objective and substantial evidence of record, the findings on which these rejections are based, and thus has failed to establish a *prima facie* case of obviousness.

The Sakata, Smith, Deaton, and Huang references, alone or in combination, do not provide substantial evidence that the following feature was known:

- *outputting to the customer, in the case that the state of the service queue is determined to indicate fewer than a predefined threshold number of customers waiting in the service queue, a coupon for the item to be redeemed at the retail establishment, wherein the outputting is conducted based on the determination that the item will not be dispensed.*

In the Response to the Fourth Office Action, Appellants presented a substantially similar argument (See, Response to the Fourth Office Action, Section III.B., starting on pg. 14) that the references failed to teach or suggest portions of the above-quoted limitation. The Examiner's response, set forth in the Final Office Action, pg. 12, lines 12-13, is as follows:

“And, it is the combination of the prior art that renders obvious the features of the Applicant's [sic] claims.”

Appellants respectfully note that the Examiner's above-quoted response is an admission, by the Examiner, that the cited references do not teach the above-quoted limitation of claims **13-16**.

The Examiner makes no further attempt to provide any evidence that this missing limitation is at all suggested by the cited references, and instead relies upon conclusory and alleged reasons to combine the references (addressed separately, below) to make up for the deficiencies of the references.

This simply falls far short of providing any evidence (much less the requisite substantial evidence) that any of claims **13-16** are rendered obvious by the cited references.

Further, and without any evidence on the record to the contrary, Appellants believe that the cited references simply fail to teach or suggest **a vending machine that dispenses coupons when a requested product will not be dispensed from the vending machine and when a line at a retail establishment is short.**

At least for these reasons, the Examiner has failed to establish a *prima facie* case for obviousness, and the Examiner's Section 103(a) rejections of claims **13-16** should therefore be **withdrawn**.

(2) No Reason to Combine: Claims 13-16

As described above, an examiner can satisfy the *prima facie* burden **only** by showing some reason that would lead to the purported combination or modification. See, KSR v. Teleflex, Slip Op. at 14. Further, pursuant to the Focarino Memo, an examiner is expected to identify a reason to combine references, and that analysis must be made explicit.

In this case, the Examiner merely provides three (3) conclusory statements that appear to be intended to support alleged reasons to combine the cited references to teach or suggest:

- *outputting to the customer, in the case that the state of the service queue is determined to indicate fewer than a predefined threshold number of customers waiting in the service queue, a coupon for the item to be redeemed at the retail establishment, wherein the outputting is conducted based on the determination that the item will not be dispensed.*

In particular, the Examiner states:

- "One would have been motivated to [combine the references] in order to better entice the user to purchase products available at the store and/or vending machine." Final Office Action, pg. 4, lines 11-12;

- “One would have been motivated to [combine the references] in order to keep customer frustration with long waits low so that customer satisfaction is high and customers become or remain regular customers.” Final Office Action, pg. 5, lines 7-9; and
- “One would have been motivated to [combine the references] in order to make offers to the customer that will keep the customer more satisfied.” Final Office Action, pg. 6, lines 21-22.

Initially, Appellants respectfully note that the Examiner has provided **absolutely no evidence** in support of these conclusory statements. Accordingly, even if these alleged motivations were relevant to the pending claims (which they are not), without any evidence on the record (much less the requisite substantial evidence), the Examiner has failed to set forth a *prima facie* case of obviousness at least by failing to properly set forth reasons for combining the references as suggested by the Examiner, much less any analysis associated therewith.

Further, it is unclear how any of these alleged reasons to combine is relevant to the pending claims.

It is unclear, for example, how the first alleged reason of ‘enticing customers to purchase products at the store and/or vending machine’ would have been a reason to combine the references as proposed by the Examiner. Claims **13-16** do not simply recite ‘providing a coupon that can be redeemed at the retail store.’ Instead, the coupon is specifically provided based on the vending machine not dispensing the product and based on the retail store having a short line. This first alleged reason to combine simply fails to address this limitation.

It is further unclear, for example, how the second alleged reason of ‘keeping customer frustration with long lines low’ and ‘keeping customers happy so that they remain/become regular customers’ would have been a reason to combine the references as proposed by the Examiner. Claims **13-16** do not recite ‘keeping lines at the retail store short’ or ‘keeping customers happy’. Indeed, claims **13-16** are structured to drive customer traffic to retail stores when lines are short. This is the **opposite result** from the intent of the alleged reason to combine of ‘keeping lines at the retail store short’. Nor is it clear how claims **13-16** are believed to be associated with, generally, ‘keeping customers

happy’, nor how such a general and vague ‘reason’ could have led one of ordinary skill in the art to combine the references as suggested by the Examiner.

It is also unclear, for example, how the third alleged reason of ‘keeping customers satisfied’ would have been a reason to combine the references as proposed by the Examiner. Claims **13-16** do not recite ‘keeping customers satisfied’. As described immediately above with respect to the alleged reason to combine of ‘keeping customers happy’, it is unclear how claims **13-16** are believed to be associated with, generally, ‘keeping customers satisfied’, nor how such a general and vague ‘reason’ could have led one of ordinary skill in the art to combine the references as suggested by the Examiner.

At least for these reasons, the Examiner has failed to establish a *prima facie* case for obviousness, and the Examiner’s Section 103(a) rejections of claims **13-16** should therefore be **withdrawn**.

*(3) The Examiner has Failed to Conduct the Required
Graham Inquiries*

Even if (i) the cited references taught or suggested every limitation of the pending claims, and (ii) the Examiner set forth and supported (with analysis and evidence) reasons to combine the cited references as suggested by the Examiner – neither of which has occurred in this case – the Final Office Action has not followed Graham with respect to the §103(a) rejections of claims **13-16**; a deficiency that has prevented a *prima facie* case of obviousness from being established. Specifically, the Examiner has neither:

- a) defined a level of ordinary skill in the art; nor
- b) clearly indicated any evidence in support of such a finding.

Such findings are **necessary** in assessing obviousness. MPEP §2141.03; Iron Barbell, 392 F.3d 1317; Ryko Mfg., 950 F.2d at 718.

The Examiner simply sets forth absolutely no findings, analysis, nor evidence associated with defining one of ordinary skill in the art at the time of the invention.

As a result of the failure to resolve and consider the level of ordinary skill, the Examiner:

(i) cannot have determined the scope and content of the prior art objectively, *i.e.*, from the point of view of the hypothetical person having ordinary skill in the art at the time of invention; and thus

(ii) cannot have determined the differences between the cited references and the claims objectively; and also

(iii) cannot have determined objectively some reason, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, for combining the references.

As the Examiner has failed to conduct the required Graham factual inquiries, the Examiner cannot factually support any *prima facie* conclusion of obviousness with respect to any pending claim.

To the contrary, because the level of ordinary skill in the art was not defined and there is no evidence of record that the Examiner's findings are objective, the record indicates only that the rejected claims were found to be obvious (i) to the Examiner (who has the benefit of Applicants' disclosure), (ii) at the time the Final Office Action was written.

At least for these reasons, the Examiner has failed to establish a *prima facie* case for obviousness, and the Examiner's Section 103(a) rejections of claims **13-16** should therefore be **withdrawn**.

*(4) Examiner's Conclusions not supported by Substantial
Evidence of Record*

The Examiner asserts:

1. [I]t would have been obvious to one having ordinary skill in the art at the time the invention was made to add Smith's product related coupon dispensed at a vending machine based on conditions at the vending machine and/or store or input from a central control center

connected to a store and/or vending machine and Deaton's targeted or situation specific coupons to Sakata's surveying a user about products available at a store and presenting a user with a coupon at a vending machine that is connected to a central computer and product distributor.

Final Office Action, pg. 4, lines 5-11;

2. [I]t would have been obvious to one having ordinary skill in the art at the time the invention was made to add Huang's retail store monitoring for better economic sense to Sakata, Deaton, and Smith's providing incentives to better entice customers based on retail and/or vending conditions.

Final Office Action, pg. 5, lines 4-8;

3. [I]t would have been obvious to one having ordinary skill in the art at the time the invention was made to add Deaton's keeping a customer satisfied, avoiding long lines, and presenting a customer with a coupon to Sakata's enticing a customer to make a purchase at a vending machine and making an offer to the customer.

Final Office Action, pg. 6, lines 18-21;

As noted above, however, the Final Office Action has made no finding of the level of ordinary skill, thus there is no objective viewpoint through which it may be found that any combination of teachings of Sakata, Smith, Deaton, and/or Huang would have been deemed desirable by one of only ordinary skill at the time of invention. Also, no evidence of any reason to provide for any of the specific missing features is provided of record. The Examiner merely (and impermissibly) recites 'motivations' that are not germane to claims **13-16** and not supported by any substantial evidence made of record.

In particular, despite the Examiner's conclusory statements, there is no evidence of any suggestion that it would have desirable or obvious to **dispense coupons when a requested product will not be dispensed from the vending machine and when a line at a retail establishment is short**. Further, as discussed above, even if a 'motivation' or other reason were established by objective and substantial evidence of record (which is not the case here), the Examiner's proposed combination would not provide for all of the features of any of claims **13-16**.

At least for these reasons, the Examiner has failed to establish a *prima facie* case for obviousness, and the Examiner's Section 103(a) rejections of claims **13-16** should therefore be **withdrawn**.

6. Claims 17-22

Claims **17-22** stand rejected under Section 103(a) as being unpatentable over Sakata, Smith, Deaton, and Huang. Claim **17** is independent.

The rejections of claims **17-22** are flawed at least because the Examiner has not made a *prima facie* case of obviousness, at least because:

- the references, alone and in combination, fail to teach the claim limitation of *transmitting, in the case that it is determined that the state of the service queue is indicative of fewer than a predefined threshold number of customers waiting in the service queue, a signal to a vending machine from the retail establishment, the signal being operative to cause the vending machine to output, to a customer at the vending machine, a coupon that is redeemable at the retail establishment;*
- despite the clear requirement for an explicit reason to combine references supported by substantial evidence, and despite the unambiguous procedures for taking official notice in the absence of documentary evidence, the Examiner has failed to meet, or even acknowledge these requirements for any of the rejected claims. Relying only on conclusory statements and circular logic to fill in the gaps, the Examiner's analysis does not meet any of the requirements of a proper obviousness rejection.

Further, at least one of the alleged reasons to combine the references set forth by the Examiner appears to be based on a failed understanding of the pending claims, resulting in an alleged reason to combine appearing to **produce a result opposite to that of the pending claims**; and

- the Examiner has failed to conduct the required *Graham* inquiries necessary to set forth a *prima facie* case for obviousness.

At least for these reasons, the Examiner has failed to establish a *prima facie* case for obviousness, and the Examiner's Section 103(a) rejections of claims **17-22** should therefore be **withdrawn**.

a) No *Prima Facie* Showing of Obviousness: Claims 17-22

A reading of the rejections of claims **17-22** reveals that the references, either alone or in combination, fail to teach limitations of claims **17-22**.

Further, even if the references taught or suggested every limitation of every claim (which is not the case), the alleged reasons to combine the references provided by the Examiner are not supported by analysis or evidence (much less the requisite substantial evidence on the record) and are not directed to how or why the references would have been combined.

Indeed, the some of the alleged reasons to combine set forth by the Examiner appear to be directed to **a result opposite to that of the pending claims**.

Further, even if the alleged reasons to combine set forth by the Examiner were relevant and properly supported (which they are not), at least because the Examiner has failed to conduct the required *Graham* inquires, *e.g.*, a determination as to the level of ordinary skill in the art, it is not clear if such alleged reasons to combine would indeed have been within the knowledge of such a person at the time of invention.

Accordingly, the Examiner has failed to establish a *prima facie* case of obviousness of claims **17-22**, and these rejections should therefore be **withdrawn**.

(1) The References Do Not Disclose All the Limitations of claims 17-22

Applicants respectfully submit that claims **17-22** are patentable in light of the evidence cited (Sakata, Smith, Deaton, and Huang), either alone or in combination.

No combination of the subject matter described in Sakata, Smith, Deaton, and/or Huang teaches or suggests all of the features of claims **17-22**. The Examiner has failed to properly support, with objective and substantial evidence of record, the findings on which these rejections are based, and thus has failed to establish a *prima facie* case of obviousness.

The Sakata, Smith, Deaton, and Huang references, alone or in combination, do not provide substantial evidence that the following feature was known:

- *transmitting, in the case that it is determined that the state of the service queue is indicative of fewer than a predefined threshold number of customers waiting in the service queue, a signal to a vending machine from the retail establishment, the signal being operative to cause the vending machine to output, to a customer at the vending machine, a coupon that is redeemable at the retail establishment.*

In the Response to the Fourth Office Action, Appellants presented a substantially similar argument (See, Response to the Fourth Office Action, Section III.B., starting on pg. 14) that the references failed to teach or suggest portions of the above-quoted limitation. The Examiner's response, set forth in the Final Office Action, pg. 12, lines 12-13, is as follows:

"And, it is the combination of the prior art that renders obvious the features of the Applicant's [sic] claims."

Appellants respectfully note that the Examiner's above-quoted response is an admission, by the Examiner, that the cited references do not teach the above-quoted limitation of claims **17-22**.

The Examiner makes no further attempt to provide any evidence that this missing limitation is at all suggested by the cited references, and instead relies upon conclusory and alleged reasons to combine the references (addressed separately, below) to make up for the deficiencies of the references.

This simply falls far short of providing any evidence (much less the requisite substantial evidence) that any of claims **17-22** are rendered obvious by the cited references.

Further, and without any evidence on the record to the contrary, Appellants believe that the cited references simply fail to teach or suggest **a retail establishment causing a vending machine to dispense coupons if a line at the retail establishment is short.**

At least for these reasons, the Examiner has failed to establish a *prima facie* case for obviousness, and the Examiner's Section 103(a) rejections of claims **17-22** should therefore be **withdrawn**.

(2) No Reason to Combine: Claims 17-22

As described above, an examiner can satisfy the *prima facie* burden **only** by showing some reason that would lead to the purported combination or modification. See, KSR v. Teleflex, Slip Op. at 14. Further, pursuant to the Focarino Memo, an examiner is expected to identify a reason to combine references, and that analysis must be made explicit.

In this case, the Examiner merely provides three (3) conclusory statements that appear to be intended to support alleged reasons to combine the cited references to teach or suggest:

- *transmitting, in the case that it is determined that the state of the service queue is indicative of fewer than a predefined threshold number of customers waiting in the service queue, a signal to a vending machine from the retail establishment, the signal being operative to cause the vending machine to output, to a customer at the vending machine, a coupon that is redeemable at the retail establishment.*

In particular, the Examiner states:

- “One would have been motivated to [combine the references] in order to better entice the user to purchase products available at the store and/or vending machine.” Final Office Action, pg. 4, lines 11-12;
- “One would have been motivated to [combine the references] in order to keep customer frustration with long waits low so that customer satisfaction is high and customers become or remain regular customers.” Final Office Action, pg. 5, lines 7-9; and
- “One would have been motivated to [combine the references] in order to make offers to the customer that will keep the customer more satisfied.” Final Office Action, pg. 6, lines 21-22.

Initially, Appellants respectfully note that the Examiner has provided **absolutely no evidence** in support of these conclusory statements. Accordingly, even if these alleged motivations were relevant to the pending claims (which they are not), without any evidence on the record (much less the requisite substantial evidence), the Examiner has failed to set forth a *prima facie* case of obviousness at least by failing to properly set forth reasons for combining the references as suggested by the Examiner, much less any analysis associated therewith.

Further, it is unclear how any of these alleged reasons to combine is relevant to the pending claims.

It is unclear, for example, how the first alleged reason of ‘enticing customers to purchase products at the store and/or vending machine’ would have been a reason to combine the references as proposed by the Examiner. Claims **17-22** do not simply recite ‘providing a coupon that can be redeemed at the retail store.’ Instead, the retail establishment causes the vending machine to output a coupon when the retail store has a short line. This first alleged reason to combine simply fails to address this limitation.

It is further unclear, for example, how the second alleged reason of ‘keeping customer frustration with long lines low’ and ‘keeping customers happy so that they remain/become regular customers’ would have been a reason to combine the references as proposed by the Examiner. Claims **17-22** do not recite ‘keeping lines at the retail store short’ or ‘keeping customers happy’. Indeed, claims **17-22** are structured to drive customer traffic to retail stores when lines are short. This is the **opposite result** from the intent of the alleged reason to combine of ‘keeping lines at the retail store short’. Nor is it clear how claims **17-22** are believed to be associated with, generally, ‘keeping customers happy’, nor how such a general and vague ‘reason’ could have led one of ordinary skill in the art to combine the references as suggested by the Examiner.

It is also unclear, for example, how the third alleged reason of ‘keeping customers satisfied’ would have been a reason to combine the references as proposed by the Examiner. Claims **17-22** do not recite ‘keeping customers satisfied’. As described immediately above with respect to the alleged reason to combine of ‘keeping customers happy’, it is unclear how claims **17-22** are believed to be associated with, generally,

'keeping customers satisfied', nor how such a general and vague 'reason' could have led one of ordinary skill in the art to combine the references as suggested by the Examiner.

At least for these reasons, the Examiner has failed to establish a *prima facie* case for obviousness, and the Examiner's Section 103(a) rejections of claims 17-22 should therefore be **withdrawn**.

*(3) The Examiner has Failed to Conduct the Required
Graham Inquiries*

Even if (i) the cited references taught or suggested every limitation of the pending claims, and (ii) the Examiner set forth and supported (with analysis and evidence) reasons to combine the cited references as suggested by the Examiner – neither of which has occurred in this case – the Final Office Action has not followed Graham with respect to the §103(a) rejections of claims 17-22; a deficiency that has prevented a *prima facie* case of obviousness from being established. Specifically, the Examiner has neither:

- c) defined a level of ordinary skill in the art; nor
- d) clearly indicated any evidence in support of such a finding.

Such findings are **necessary** in assessing obviousness. MPEP §2141.03; Iron Barbell, 392 F.3d 1317; Ryko Mfg., 950 F.2d at 718.

The Examiner simply sets forth absolutely no findings, analysis, nor evidence associated with defining one of ordinary skill in the art at the time of the invention.

As a result of the failure to resolve and consider the level of ordinary skill, the Examiner:

- (i) cannot have determined the scope and content of the prior art objectively, *i.e.*, from the point of view of the hypothetical person having ordinary skill in the art at the time of invention; and thus
- (ii) cannot have determined the differences between the cited references and the claims objectively; and also

(iii) cannot have determined objectively some reason, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, for combining the references.

As the Examiner has failed to conduct the required Graham factual inquiries, the Examiner cannot factually support any *prima facie* conclusion of obviousness with respect to any pending claim.

To the contrary, because the level of ordinary skill in the art was not defined and there is no evidence of record that the Examiner's findings are objective, the record indicates only that the rejected claims were found to be obvious (i) to the Examiner (who has the benefit of Applicants' disclosure), (ii) at the time the Final Office Action was written.

At least for these reasons, the Examiner has failed to establish a *prima facie* case for obviousness, and the Examiner's Section 103(a) rejections of claims 17-22 should therefore be **withdrawn**.

*(4) Examiner's Conclusions not supported by Substantial
Evidence of Record*

The Examiner asserts:

1. [I]t would have been obvious to one having ordinary skill in the art at the time the invention was made to add Smith's product related coupon dispensed at a vending machine based on conditions at the vending machine and/or store or input from a central control center connected to a store and/or vending machine and Deaton's targeted or situation specific coupons to Sakata's surveying a user about products available at a store and presenting a user with a coupon at a vending machine that is connected to a central computer and product distributor.

Final Office Action, pg. 4, lines 5-11;

2. [I]t would have been obvious to one having ordinary skill in the art at the time the invention was made to add Huang's retail store monitoring for better economic sense to Sakata, Deaton, and Smith's providing incentives to better entice customers based on retail and/or vending conditions.

Final Office Action, pg. 5, lines 4-8;

3. [I]t would have been obvious to one having ordinary skill in the art at the time the invention was made to add Deaton's keeping a customer satisfied, avoiding long lines, and presenting a customer with a coupon to Sakata's enticing a customer to make a purchase at a vending machine and making an offer to the customer.

Final Office Action, pg. 6, lines 18-21;

As noted above, however, the Final Office Action has made no finding of the level of ordinary skill, thus there is no objective viewpoint through which it may be found that any combination of teachings of Sakata, Smith, Deaton, and/or Huang would have been deemed desirable by one of only ordinary skill at the time of invention. Also, no evidence of any reason to provide for any of the specific missing features is provided of record. The Examiner merely (and impermissibly) recites 'motivations' that are not germane to claims **17-22** and not supported by any substantial evidence made of record.

In particular, despite the Examiner's conclusory statements, there is no evidence of any suggestion that it would have desirable or obvious for **a retail establishment to cause a vending machine to dispense coupons if a line at the retail establishment is short**. Further, as discussed above, even if a 'motivation' or other reason were established by objective and substantial evidence of record (which is not the case here), the Examiner's proposed combination would not provide for all of the features of any of claims **17-22**.

At least for these reasons, the Examiner has failed to establish a *prima facie* case for obviousness, and the Examiner's Section 103(a) rejections of claims **17-22** should therefore be **withdrawn**.

7. Claims 23-26

Claims **23-26** stand rejected under Section 103(a) as being unpatentable over Sakata, Smith, Deaton, and Huang. Claim **23** is independent.

The rejections of claims **23-26** are flawed at least because the Examiner has not made a *prima facie* case of obviousness, at least because:

- the references, alone and in combination, fail to teach the claim limitation of a *transmitting device associated with the retail establishment, the transmitting device being operable to transmit, to a vending machine and in the case that the current rate of transactions is determined to be indicative of fewer than the predefined threshold rate of transactions, a trigger signal*;
- despite the clear requirement for an explicit reason to combine references supported by substantial evidence, and despite the unambiguous procedures for taking official notice in the absence of documentary evidence, the Examiner has failed to meet, or even acknowledge these requirements for any of the rejected claims. Relying only on conclusory statements and circular logic to fill in the gaps, the Examiner's analysis does not meet any of the requirements of a proper obviousness rejection.

Further, at least one of the alleged reasons to combine the references set forth by the Examiner appears to be based on a failed understanding of the pending claims, resulting in an alleged reason to combine appearing to **produce a result opposite to that of the pending claims**; and

- the Examiner has failed to conduct the required *Graham* inquiries necessary to set forth a *prima facie* case for obviousness.

At least for these reasons, the Examiner has failed to establish a *prima facie* case for obviousness, and the Examiner's Section 103(a) rejections of claims **23-26** should therefore be **withdrawn**.

a) No Prima Facie Showing of Obviousness: Claims **23-26**

A reading of the rejections of claims **23-26** reveals that the references, either alone or in combination, fail to teach limitations of claims **23-26**.

Further, even if the references taught or suggested every limitation of every claim (which is not the case), the alleged reasons to combine the references provided by the Examiner are not supported by analysis or evidence (much less the requisite substantial

evidence on the record) and are not directed to how or why the references would have been combined.

Indeed, the some of the alleged reasons to combine set forth by the Examiner appear to be directed to **a result opposite to that of the pending claims**.

Further, even if the alleged reasons to combine set forth by the Examiner were relevant and properly supported (which they are not), at least because the Examiner has failed to conduct the required *Graham* inquires, *e.g.*, a determination as to the level of ordinary skill in the art, it is not clear if such alleged reasons to combine would indeed have been within the knowledge of such a person at the time of invention.

Accordingly, the Examiner has failed to establish a *prima facie* case of obviousness of claims **23-26**, and these rejections should therefore be **withdrawn**.

*(1) The References Do Not Disclose All the Limitations of
claims 23-26*

Applicants respectfully submit that claims **23-26** are patentable in light of the evidence cited (Sakata, Smith, Deaton, and Huang), either alone or in combination.

No combination of the subject matter described in Sakata, Smith, Deaton, and/or Huang teaches or suggests all of the features of claims **23-26**. The Examiner has failed to properly support, with objective and substantial evidence of record, the findings on which these rejections are based, and thus has failed to establish a *prima facie* case of obviousness.

The Sakata, Smith, Deaton, and Huang references, alone or in combination, do not provide substantial evidence that the following feature was known:

- *a transmitting device associated with the retail establishment, the transmitting device being operable to transmit, to a vending machine and in the case that the current rate of transactions is determined to be indicative of fewer than the predefined threshold rate of transactions, a trigger signal.*

There is no evidence of record (much less the requisite substantial evidence) that any of claims **23-26** are rendered obvious by the cited references.

Further, and without any evidence on the record to the contrary, Appellants believe that the cited references simply fail to teach or suggest **a retail establishment sending a trigger signal to a vending machine if business is slow at the retail establishment.**

At least for these reasons, the Examiner has failed to establish a *prima facie* case for obviousness, and the Examiner's Section 103(a) rejections of claims **23-26** should therefore be **withdrawn**.

(2) No Reason to Combine: Claims 23-26

As described above, an examiner can satisfy the *prima facie* burden **only** by showing some reason that would lead to the purported combination or modification. See, KSR v. Teleflex, Slip Op. at 14. Further, pursuant to the Focarino Memo, an examiner is expected to identify a reason to combine references, and that analysis must be made explicit.

In this case, no apparent reasons to combine the cited references are provided, nor is any analysis associated therewith, nor is any evidence to support any such reasons to combine. However, even if one were to assume that the Examiner intended reasons to combine asserted against other claims to apply to claims **23-26**, such reasons would, as described elsewhere herein, appear either inapplicable or to produce results opposite that of claims **23-26**.

While claims **23-26** are directed to increasing customer traffic at a retail establishment during periods of slow business, for example, such that any lines may be lengthened, not shortened, the Examiner's alleged motivation of 'shortening lines' is the **opposite result** of that effectuated by claims **23-26**.

At least for this reason, the Examiner has failed to establish a *prima facie* case for obviousness, and the Examiner's Section 103(a) rejections of claims **23-26** should therefore be **withdrawn**.

(3) *The Examiner has Failed to Conduct the Required
Graham Inquiries*

Even if (i) the cited references taught or suggested every limitation of the pending claims, and (ii) the Examiner set forth and supported (with analysis and evidence) reasons to combine the cited references as suggested by the Examiner – neither of which has occurred in this case – the Final Office Action has not followed Graham with respect to the §103(a) rejections of claims **23-26**; a deficiency that has prevented a *prima facie* case of obviousness from being established. Specifically, the Examiner has neither:

- e) defined a level of ordinary skill in the art; nor
- f) clearly indicated any evidence in support of such a finding.

Such findings are **necessary** in assessing obviousness. MPEP §2141.03; Iron Barbell, 392 F.3d 1317; Ryko Mfg., 950 F.2d at 718.

The Examiner simply sets forth absolutely no findings, analysis, nor evidence associated with defining one of ordinary skill in the art at the time of the invention.

As a result of the failure to resolve and consider the level of ordinary skill, the Examiner:

(i) cannot have determined the scope and content of the prior art objectively, *i.e.*, from the point of view of the hypothetical person having ordinary skill in the art at the time of invention; and thus

(ii) cannot have determined the differences between the cited references and the claims objectively; and also

(iii) cannot have determined objectively some reason, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, for combining the references.

As the Examiner has failed to conduct the required Graham factual inquiries, the Examiner cannot factually support any *prima facie* conclusion of obviousness with respect to any pending claim.

To the contrary, because the level of ordinary skill in the art was not defined and there is no evidence of record that the Examiner's findings are objective, the record

indicates only that the rejected claims were found to be obvious (i) to the Examiner (who has the benefit of Applicants' disclosure), (ii) at the time the Final Office Action was written.

At least for these reasons, the Examiner has failed to establish a *prima facie* case for obviousness, and the Examiner's Section 103(a) rejections of claims **23-26** should therefore be **withdrawn**.

8. Claim 27

Claim 27 stands rejected under Section 103(a) as being unpatentable over Sakata, Smith, Deaton, and Huang. Claim 27 is independent.

The rejection of claim 27 is flawed at least because the Examiner has not made a *prima facie* case of obviousness, at least because:

- the references, alone and in combination, fail to teach the claim limitation of a *trigger device associated with the retail establishment, the trigger device being operable to transmit, to a vending machine and in the case that the current time satisfies the predetermined criteria based on hours of operation of the retail establishment, a trigger signal*;
- despite the clear requirement for an explicit reason to combine references supported by substantial evidence, and despite the unambiguous procedures for taking official notice in the absence of documentary evidence, the Examiner has failed to meet, or even acknowledge these requirements for any of the rejected claims. Relying only on conclusory statements and circular logic to fill in the gaps, the Examiner's analysis does not meet any of the requirements of a proper obviousness rejection; and
- the Examiner has failed to conduct the required *Graham* inquiries necessary to set forth a *prima facie* case for obviousness.

At least for these reasons, the Examiner has failed to establish a *prima facie* case for obviousness, and the Examiner's Section 103(a) rejection of claim 27 should therefore be **withdrawn**.

a) No Prima Facie Showing of Obviousness: Claim 27

A reading of the rejection of claim 27 reveals that the references, either alone or in combination, fail to teach limitations of claim 27.

Further, even if the references taught or suggested every limitation of the claim (which is not the case), the alleged reasons to combine the references provided by the Examiner are not supported by analysis or evidence (much less the requisite substantial evidence on the record) and are not directed to how or why the references would have been combined.

Further, even if the alleged reasons to combine set forth by the Examiner were relevant and properly supported (which they are not), at least because the Examiner has failed to conduct the required *Graham* inquires, e.g., a determination as to the level of ordinary skill in the art, it is not clear if such alleged reasons to combine would indeed have been within the knowledge of such a person at the time of invention.

Accordingly, the Examiner has failed to establish a *prima facie* case of obviousness of claim 27, and this rejection should therefore be **withdrawn**.

(1) The References Do Not Disclose All the Limitations of claim 27

Applicants respectfully submit that claim 27 is patentable in light of the evidence cited (Sakata, Smith, Deaton, and Huang), either alone or in combination.

No combination of the subject matter described in Sakata, Smith, Deaton, and/or Huang teaches or suggests all of the features of claim 27. The Examiner has failed to properly support, with objective and substantial evidence of record, the findings on which these rejections are based, and thus has failed to establish a *prima facie* case of obviousness.

The Sakata, Smith, Deaton, and Huang references, alone or in combination, do not provide substantial evidence that the following feature was known:

- *a trigger device associated with the retail establishment, the trigger device being operable to transmit, to a vending machine and in the case that the current time satisfies the predetermined criteria based on hours of operation of the retail establishment, a trigger signal.*

The Examiner's only attempt to show how this limitation is taught or suggested is to allege that "Deaton discloses providing coupons relative to time." Final Office Action, pg. 8, line 14. It is unclear how this allegation, even if true (which Applicants do not address at this time), would teach, suggest, or render the above-quoted limitation obvious.

The Examiner makes no further attempt to provide any evidence that this limitation is at all suggested by the cited references.

This simply falls far short of providing any evidence (much less the requisite substantial evidence) that claim 27 is rendered obvious by the cited references.

Further, and without any evidence on the record to the contrary, Appellants believe that the cited references simply fail to teach or suggest **a retail establishment sending a trigger signal to a vending machine based on criteria of business hours of the retail establishment.**

At least for these reasons, the Examiner has failed to establish a *prima facie* case for obviousness, and the Examiner's Section 103(a) rejections of claims 17-22 should therefore be **withdrawn**.

(2) No Reason to Combine: Claim 27

As described above, an examiner can satisfy the *prima facie* burden **only** by showing some reason that would lead to the purported combination or modification. See, KSR v. Teleflex, Slip Op. at 14. Further, pursuant to the Focarino Memo, an examiner is expected to identify a reason to combine references, and that analysis must be made explicit.

In this case, no reasons to combine the cited references are provided, nor is any analysis associated therewith, nor is any evidence to support any such reasons to combine.

At least for this reason, the Examiner has failed to establish a *prima facie* case for obviousness, and the Examiner's Section 103(a) rejection of claim 27 should therefore be **withdrawn**.

*(3) The Examiner has Failed to Conduct the Required
Graham Inquiries*

Even if (i) the cited references taught or suggested every limitation of the pending claims, and (ii) the Examiner set forth and supported (with analysis and evidence) reasons to combine the cited references as suggested by the Examiner – neither of which has occurred in this case – the Final Office Action has not followed Graham with respect to the §103(a) rejection of claim 27; a deficiency that has prevented a *prima facie* case of obviousness from being established. Specifically, the Examiner has neither:

- g) defined a level of ordinary skill in the art; nor
- h) clearly indicated any evidence in support of such a finding.

Such findings are **necessary** in assessing obviousness. MPEP §2141.03; Iron Barbell, 392 F.3d 1317; Ryko Mfg., 950 F.2d at 718.

The Examiner simply sets forth absolutely no findings, analysis, nor evidence associated with defining one of ordinary skill in the art at the time of the invention.

As a result of the failure to resolve and consider the level of ordinary skill, the Examiner:

(i) cannot have determined the scope and content of the prior art objectively, *i.e.*, from the point of view of the hypothetical person having ordinary skill in the art at the time of invention; and thus

(ii) cannot have determined the differences between the cited references and the claims objectively; and also

(iii) cannot have determined objectively some reason, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, for combining the references.

As the Examiner has failed to conduct the required Graham factual inquiries, the Examiner cannot factually support any *prima facie* conclusion of obviousness with respect to any pending claim.

To the contrary, because the level of ordinary skill in the art was not defined and there is no evidence of record that the Examiner's findings are objective, the record indicates only that the rejected claims were found to be obvious (i) to the Examiner (who has the benefit of Applicants' disclosure), (ii) at the time the Final Office Action was written.

At least for these reasons, the Examiner has failed to establish a *prima facie* case for obviousness, and the Examiner's Section 103(a) rejection of claim 27 should therefore be **withdrawn**.

9. Claims 30-35 and 51-52

Claims 30-35 and 51-52 stand rejected under Section 103(a) as being unpatentable over Sakata, Smith, Deaton, and Huang. Claim 30 is independent.

The rejections of claims 30-35 and 51-52 are flawed at least because the Examiner has not made a *prima facie* case of obviousness, at least because:

- the references, alone and in combination, fail to teach the claim limitation of *outputting, by the vending machine, based at least in part on (i) the determination that the rate of transactions currently being experienced by the retail establishment is less than the predetermined threshold rate of transactions, and (ii) the determination that the item will not be dispensed, an offer to the customer,*
- despite the clear requirement for an explicit reason to combine references supported by substantial evidence, and despite the unambiguous procedures for taking official notice in the absence of documentary evidence, the Examiner has failed to meet, or even acknowledge these requirements for any of the rejected claims. Relying only on conclusory statements and circular logic to fill in the gaps, the Examiner's analysis does not meet any of the requirements of a proper obviousness rejection.

Further, at least one of the alleged reasons to combine the references set forth by the Examiner appears to be based on a failed understanding of the pending claims, resulting in an alleged reason to combine appearing to **produce a result opposite to that of the pending claims**; and

- the Examiner has failed to conduct the required *Graham* inquiries necessary to set forth a *prima facie* case for obviousness.

At least for these reasons, the Examiner has failed to establish a *prima facie* case for obviousness, and the Examiner's Section 103(a) rejections of claims **30-35** and **51-52** should therefore be **withdrawn**.

a) No *Prima Facie* Showing of Obviousness: Claims **30-35** and **51-52**

A reading of the rejections of claims **30-35** and **51-52** reveals that the references, either alone or in combination, fail to teach limitations of claims **30-35** and **51-52**.

Further, even if the references taught or suggested every limitation of every claim (which is not the case), the alleged reasons to combine the references provided by the Examiner are not supported by analysis or evidence (much less the requisite substantial evidence on the record) and are not directed to how or why the references would have been combined.

Indeed, the some of the alleged reasons to combine set forth by the Examiner appear to be directed to **a result opposite to that of the pending claims**.

Further, even if the alleged reasons to combine set forth by the Examiner were relevant and properly supported (which they are not), at least because the Examiner has failed to conduct the required *Graham* inquiries, *e.g.*, a determination as to the level of ordinary skill in the art, it is not clear if such alleged reasons to combine would indeed have been within the knowledge of such a person at the time of invention.

Accordingly, the Examiner has failed to establish a *prima facie* case of obviousness of claims **30-35** and **51-52**, and these rejections should therefore be **withdrawn**.

*(1) The References Do Not Disclose All the Limitations of
claims 30-35 and 51-52*

Applicants respectfully submit that claims **30-35** and **51-52** are patentable in light of the evidence cited (Sakata, Smith, Deaton, and Huang), either alone or in combination.

No combination of the subject matter described in Sakata, Smith, Deaton, and/or Huang teaches or suggests all of the features of claims **30-35** and **51-52**. The Examiner has failed to properly support, with objective and substantial evidence of record, the findings on which these rejections are based, and thus has failed to establish a *prima facie* case of obviousness.

The Sakata, Smith, Deaton, and Huang references, alone or in combination, do not provide substantial evidence that the following feature was known:

- *outputting, by the vending machine, based at least in part on (i) the determination that the rate of transactions currently being experienced by the retail establishment is less than the predetermined threshold rate of transactions, and (ii) the determination that the item will not be dispensed, an offer to the customer.*

In the Response to the Fourth Office Action, Appellants presented a substantially similar argument (See, Response to the Fourth Office Action, Section III.B., starting on pg. 14) that the references failed to teach or suggest portions of the above-quoted limitation. The Examiner's response, set forth in the Final Office Action, pg. 12, lines 12-13, is as follows:

"And, it is the combination of the prior art that renders obvious the features of the Applicant's [sic] claims."

Appellants respectfully note that the Examiner's above-quoted response is an admission, by the Examiner, that the cited references do not teach the above-quoted limitation of claims **30-35** and **51-52**.

The Examiner makes no further attempt to provide any evidence that this missing limitation is at all suggested by the cited references, and instead relies upon conclusory and alleged reasons to combine the references (addressed separately, below) to make up for the deficiencies of the references.

This simply falls far short of providing any evidence (much less the requisite substantial evidence) that any of claims **30-35** and **51-52** are rendered obvious by the cited references.

Further, and without any evidence on the record to the contrary, Appellants believe that the cited references simply fail to teach or suggest **a vending machine that dispenses coupons when a requested product will not be dispensed from the vending machine and when business is slow at a retail establishment.**

At least for these reasons, the Examiner has failed to establish a *prima facie* case for obviousness, and the Examiner's Section 103(a) rejections of claims **30-35** and **51-52** should therefore be **withdrawn**.

(2) No Reason to Combine: Claims 30-35 and 51-52

As described above, an examiner can satisfy the *prima facie* burden **only** by showing some reason that would lead to the purported combination or modification. See, KSR v. Teleflex, Slip Op. at 14. Further, pursuant to the Focarino Memo, an examiner is expected to identify a reason to combine references, and that analysis must be made explicit.

In this case, the Examiner merely provides three (3) conclusory statements that appear to be intended to support alleged reasons to combine the cited references to teach or suggest:

- *outputting, by the vending machine, based at least in part on (i) the determination that the rate of transactions currently being experienced by the retail establishment is less than the predetermined threshold rate of transactions, and (ii) the determination that the item will not be dispensed, an offer to the customer.*

In particular, the Examiner states:

- "One would have been motivated to [combine the references] in order to better entice the user to purchase products available at the store and/or vending machine." Final Office Action, pg. 4, lines 11-12;

- “One would have been motivated to [combine the references] in order to keep customer frustration with long waits low so that customer satisfaction is high and customers become or remain regular customers.” Final Office Action, pg. 5, lines 7-9; and
- “One would have been motivated to [combine the references] in order to make offers to the customer that will keep the customer more satisfied.” Final Office Action, pg. 6, lines 21-22.

Initially, Appellants respectfully note that the Examiner has provided **absolutely no evidence** in support of these conclusory statements. Accordingly, even if these alleged motivations were relevant to the pending claims (which they are not), without any evidence on the record (much less the requisite substantial evidence), the Examiner has failed to set forth a *prima facie* case of obviousness at least by failing to properly set forth reasons for combining the references as suggested by the Examiner, much less any analysis associated therewith.

Further, it is unclear how any of these alleged reasons to combine is relevant to the pending claims.

It is unclear, for example, how the first alleged reason of ‘enticing customers to purchase products at the store and/or vending machine’ would have been a reason to combine the references as proposed by the Examiner. Claims **30-35** and **51-52** do not simply recite ‘providing a coupon that can be redeemed at the retail store.’ Instead, the coupon is specifically provided based on the vending machine not dispensing the product and based on the retail store not being busy. This first alleged reason to combine simply fails to address this limitation.

It is further unclear, for example, how the second alleged reason of ‘keeping customer frustration with long lines low’ and ‘keeping customers happy so that they remain/become regular customers’ would have been a reason to combine the references as proposed by the Examiner. Claims **30-35** and **51-52** do not recite ‘keeping lines at the retail store short’ or ‘keeping customers happy’. Indeed, claims **30-35** and **51-52** are structured to drive customer traffic to retail stores when business is slow. This is the **opposite result** from the intent of the alleged reason to combine of ‘keeping lines at the retail store short’. Nor is it clear how claims **30-35** and **51-52** are believed to be

associated with, generally, ‘keeping customers happy’, nor how such a general and vague ‘reason’ could have led one of ordinary skill in the art to combine the references as suggested by the Examiner.

It is also unclear, for example, how the third alleged reason of ‘keeping customers satisfied’ would have been a reason to combine the references as proposed by the Examiner. Claims **30-35** and **51-52** do not recite ‘keeping customers satisfied’. As described immediately above with respect to the alleged reason to combine of ‘keeping customers happy’, it is unclear how claims **30-35** and **51-52** are believed to be associated with, generally, ‘keeping customers satisfied’, nor how such a general and vague ‘reason’ could have led one of ordinary skill in the art to combine the references as suggested by the Examiner.

At least for these reasons, the Examiner has failed to establish a *prima facie* case for obviousness, and the Examiner’s Section 103(a) rejections of claims **30-35** and **51-52** should therefore be **withdrawn**.

*(3) The Examiner has Failed to Conduct the Required
Graham Inquiries*

Even if (i) the cited references taught or suggested every limitation of the pending claims, and (ii) the Examiner set forth and supported (with analysis and evidence) reasons to combine the cited references as suggested by the Examiner – neither of which has occurred in this case – the Final Office Action has not followed Graham with respect to the §103(a) rejections of claims **30-35** and **51-52**; a deficiency that has prevented a *prima facie* case of obviousness from being established. Specifically, the Examiner has neither:

- i) defined a level of ordinary skill in the art; nor
- j) clearly indicated any evidence in support of such a finding.

Such findings are **necessary** in assessing obviousness. MPEP §2141.03; Iron Barbell, 392 F.3d 1317; Ryko Mfg., 950 F.2d at 718.

The Examiner simply sets forth absolutely no findings, analysis, nor evidence associated with defining one of ordinary skill in the art at the time of the invention.

As a result of the failure to resolve and consider the level of ordinary skill, the Examiner:

(i) cannot have determined the scope and content of the prior art objectively, *i.e.*, from the point of view of the hypothetical person having ordinary skill in the art at the time of invention; and thus

(ii) cannot have determined the differences between the cited references and the claims objectively; and also

(iii) cannot have determined objectively some reason, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, for combining the references.

As the Examiner has failed to conduct the required Graham factual inquiries, the Examiner cannot factually support any *prima facie* conclusion of obviousness with respect to any pending claim.

To the contrary, because the level of ordinary skill in the art was not defined and there is no evidence of record that the Examiner's findings are objective, the record indicates only that the rejected claims were found to be obvious (i) to the Examiner (who has the benefit of Applicants' disclosure), (ii) at the time the Final Office Action was written.

At least for these reasons, the Examiner has failed to establish a *prima facie* case for obviousness, and the Examiner's Section 103(a) rejections of claims **30-35** and **51-52** should therefore be **withdrawn**.

*(4) Examiner's Conclusions not supported by Substantial
Evidence of Record*

The Examiner asserts:

4. [I]t would have been obvious to one having ordinary skill in the art at the time the invention was made to add Smith's product related coupon dispensed at a vending machine based on conditions at the vending machine and/or store or input from a central control center

connected to a store and/or vending machine and Deaton's targeted or situation specific coupons to Sakata's surveying a user about products available at a store and presenting a user with a coupon at a vending machine that is connected to a central computer and product distributor.

Final Office Action, pg. 4, lines 5-11;

5. [I]t would have been obvious to one having ordinary skill in the art at the time the invention was made to add Huang's retail store monitoring for better economic sense to Sakata, Deaton, and Smith's providing incentives to better entice customers based on retail and/or vending conditions.

Final Office Action, pg. 5, lines 4-8;

6. [I]t would have been obvious to one having ordinary skill in the art at the time the invention was made to add Deaton's keeping a customer satisfied, avoiding long lines, and presenting a customer with a coupon to Sakata's enticing a customer to make a purchase at a vending machine and making an offer to the customer.

Final Office Action, pg. 6, lines 18-21;

As noted above, however, the Final Office Action has made no finding of the level of ordinary skill, thus there is no objective viewpoint through which it may be found that any combination of teachings of Sakata, Smith, Deaton, and/or Huang would have been deemed desirable by one of only ordinary skill at the time of invention. Also, no evidence of any reason to provide for any of the specific missing features is provided of record. The Examiner merely (and impermissibly) recites 'motivations' that are not germane to claims **30-35** and **51-52** and not supported by any substantial evidence made of record.

In particular, despite the Examiner's conclusory statements, there is no evidence of any suggestion that it would have desirable or obvious for **a vending machine that dispenses coupons when a requested product will not be dispensed from the vending machine and when business is slow at a retail establishment**. Further, as discussed above, even if a 'motivation' or other reason were established by objective and substantial evidence of record (which is not the case here), the Examiner's proposed combination would not provide for all of the features of any of claims **30-35** and **51-52**.

At least for these reasons, the Examiner has failed to establish a *prima facie* case for obviousness, and the Examiner's Section 103(a) rejections of claims **30-35** and **51-52** should therefore be **withdrawn**.

10. Claims **54-61**

Claims **54-61** stand rejected under Section 103(a) as being unpatentable over Sakata, Smith, Deaton, and Huang. Claim **54** is independent. As claims **54-61** are amended substantially herein to address limitations not addressed by the Final Office Action, the outstanding rejections of claims **54-61** are moot.

Appellants believe, after having reviewed all of the evidence of record, that claims **54-61** are patentable at least because the cited references, either alone or in combination, fail to teach or suggest at least:

(i) *a vending machine associated with a retail establishment, the vending machine operable to: determine that a different item offered for sale via the retail establishment is overstocked at the retail establishment (claims **54-61**);*

(ii) *a vending machine associated with a retail establishment, the vending machine operable to: output, based at least in part on a determination that the different item is overstocked at the retail establishment, an offer to the customer, the offer comprising a discount on the different item (claims **54-61**);*

(iii) *a point-of-sale terminal of the retail establishment...wherein the point-of-sale terminal is operable to: receive, from the sensor, an indication of the overstock state of the different product at the retail establishment (claim **55**);*

(iv) *a point-of-sale terminal of the retail establishment...wherein the point-of-sale terminal is operable to: transmit, to the vending machine, an indication of the detected overstock state of the different product at the retail establishment (claim **55**);*

(v) *wherein the vending machine comprises an ATM device (claim **56**);*

(vi) *wherein the vending machine comprises a parking meter device (claim **57**);*

(vii) *wherein the vending machine comprises a slot machine (claim **58**);*

(viii) *wherein the vending machine comprises a laundry machine (claim **59**);*

(ix) *wherein the vending machine is operable to output the offer for the discount on the different item by transmitting an indication of the offer to a mobile device associated with the customer (claim 60);*

(x) *a point-of-sale terminal of the retail establishment, the point-of-sale terminal being operable to: receive an indication of the offer for the discount on the different item from the mobile device associated with the customer (claim 60);*

(xi) *a point-of-sale terminal of the retail establishment, the point-of-sale terminal being operable to: process a sale of a unit of the different item to the customer for a discounted price based at least in part on a receipt of the indication of the offer for the discount on the different item from the mobile device associated with the customer (claim 60); or*

(xii) *a central controller in communication with the vending machine, the central controller being operable to: determine, based at least in part on the number of times that offers associated with the retail establishment are output by the vending machine, an amount of payment owed by the retail establishment as compensation for the output offers (claim 61).*

At least for these reasons, claims **54-61** are believed to be allowable and any outstanding rejections thereof should be **withdrawn**.

IV. New Claims

New claims **62-67** are believed to be patentable over the cited references at least for the reasons otherwise presented herein. Further, after reviewing the cited references, Applicants believe that the cited references fail to teach, suggest, or render obvious at least:

(i) *determining, by the vending machine, whether a current time satisfies a predetermined criteria based on hours of operation of the retail establishment (claims 62-65);*

(ii) *outputting to the customer, in the case that the current time satisfies the predetermined criteria based on hours of operation of the retail establishment, a coupon for the item to be redeemed at the retail establishment, wherein the outputting is*

*conducted based on the determination that the item will not be dispensed by the vending machine (claims **62-65**);*

*(iii) wherein the determining that the item will not be dispensed by the vending machine comprises: determining that the item cannot be dispensed by the vending machine due to the item being out of stock at the vending machine (claim **63**);*

*(iv) wherein the determining that the item will not be dispensed by the vending machine comprises: determining that an amount of inventory of the item at the vending machine is below a predefined inventory threshold (claim **64**);*

*(v) wherein the coupon is for a discount on the item if redeemed by the customer at the retail establishment (claim **65**);*

*(vi) identifying, by the central controller, a subset of the reporting data that was received from a vending machine from the plurality of vending machines, wherein the vending machine is identified by the vending machine identifier (claims **66-67**);*

*(vii) determining, by the central controller and based on the subset of the reporting data received from the vending machine, a number of times that an offer identified by the offer identifier has been output by the vending machine during a specific time period (claims **66-67**);*

*(viii) calculating, by the central controller and based at least in part on the number of times that the offer has been output by the vending machine during the specific time period, an amount owed by a retailer identified by the retailer identifier (claims **66-67**); or*

*(ix) determining, by the vending machine, the subset of reporting data summarizing metrics regarding offers output by the vending machine during the specific time period (claim **67**).*

V. Conclusion

If there are any questions regarding the present application or the amendments presented herein, the Examiner is cordially requested to contact Carson C.K. Fincham at telephone number 203-461-7017 or via electronic mail at cfincham@walkerdigital.com, at the Examiner's convenience.

VI. Petition for Extension of Time to Respond

Applicants believe a **two-month** extension of time within which to respond is due with this submission. Accordingly, Applicants hereby petition for a **two-month extension of time** and authorize the charge of **\$225.00** to our Deposit Account No. 50 - 0271. Please charge any additional fees that may be required for this submission, or credit any overpayment to Deposit Account No. 50-0271

If any other extension of time is required, or if an additional fees are required, please grant a petition for that extension of time which is required to make this Response timely, and please charge any such fee to Deposit Account No. 50-0271.

Respectfully submitted,

May 24, 2007
Date

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